



DEPARTMENT
OF UTILITIES

ENGINEERING
SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

October 23, 2006
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Anne L. Olson, P.E.
Water Resources Control Engineer
California Regional Water Quality Control Board
Central Valley Region
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**Subject: COMMENTS REGARDING TENTATIVE WASTE DISCHARGE
REQUIREMENTS FOR CITY OF SACRAMENTO UTILITIES
DEPARTMENT, E.A. FAIRBAIRN WATER TREATMENT PLANT**

Dear Ms. Olson:

The City of Sacramento Department of Utilities appreciates the opportunity to provide comments on the tentative waste discharge requirements for the E.A. Fairbairn Water Treatment Plant. We also appreciate the additional time that the Regional Water Board staff allowed for us to review and comment on the proposed WDRs.

While the City does not oppose waste discharge requirements, we believe the waste produced at the Fairburn Water Treatment Plant, poses a deminimis threat to groundwater or surface water and the permit requirements should be commensurate to that threat. As the tentative WDRs recognize, the sludge is stored in concrete lagoons, best practices are already in place, and the Designated Level Methodology for Waste Classification and Cleanup Level Determination (DLM) suggests the level of attenuation from concrete lagoons is sufficient to classify the waste as inert.

Our comments on the tentative WDRs fall into three general categories. First, this letter addresses the significant issues that we believe must be addressed prior to adoption of the WDRs. The second category sets forth needed technical and editorial revisions, and the third category provides responses to comments submitted by the California Sportfishing Protection Alliance, which we believe greatly overstate the risks associated with the by-product of the drinking water treatment process. The latter two categories are presented as attachments to this letter.



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The Provisions of the Tentative WDRs that Prescribe Particular Water Treatment Plant Operations Exceed the Regional Water Board's Mission and Jurisdiction and Should be Removed.

The City recognizes that an important role of the Regional Water Board is to regulate *wastewater* treatment facilities, and that to protect water quality in this context, waste discharge requirements often include provisions addressing operations, such as limits on average daily flows. In this case, however, the Board is regulating *drinking water* treatment facilities for a very limited reason: the perceived potential (however remote) that sludge from the drinking water treatment process stored in concrete lagoons could affect underlying groundwater. A separate regulatory agency, the Department of Health Services (DHS), is responsible for permitting drinking water treatment plants, and the City operates the E.A. Fairbairn plant pursuant to a permit issued by DHS. (Permit Number 01-09-06-PER-003, issued April 6, 2006.) The DHS permit authorizes the City to produce up to 160 million gallons per day of water supply for the City's customers. Indeed, the permit requires that the City demonstrate sufficient capacity to serve the anticipated water demand in the community for the next 10 years. The permit includes detailed conditions governing operation of the plant.

The tentative WDRs go beyond the Regional Water Board's role of protecting groundwater quality and impermissibly intrude on internal treatment plant operational decisions. Discharge Specification 1, for example, would limit the City's drinking water production to 90 mgd until the Executive Officer approves an increase. This provision is not necessary and will place the City in the position of not being able to provide adequate water supply, putting the public health and safety at risk. The City will have to exceed this proposed capacity limitation for a variety of reasons, including removing the Sacramento Water Treatment Plant for maintenance during winter months (necessitating an increase in production from the Fairbairn plant) as well as to satisfy peak warm weather demands. To address this issue, the City requests the following revisions to the WDRs:

- Delete Discharge Specification 1: As noted, this specification impermissibly limits the City's drinking water production. The City has no objection to submitting the report required by Provision E.1.c by a date certain, which we propose as December 1, 2007.
- Delete Discharge Specification 5: This specification would require the City to operate its treatment plant in a manner that "optimizes the quality of the discharge." This conflicts with the City's obligation to operate its drinking water treatment plant in accordance with its DHS permit to optimize the quality of the drinking water served to its customers. For example, a reduction in the use of alum would reduce the amount of sludge produced—and therefore optimize the discharge—but would conflict with the process of water purification, because it would increase the turbidity of water reaching the filters.
- Delete Discharge Specifications 7, 8 and 9: These provisions appear to be modeled on the standard specifications applied to wastewater treatment ponds. However, these provisions are not relevant to the lagoons, which are not designed to accommodate or store precipitation. Water that collects in the ponds during a rain event is either recirculated through the plant headworks or discharged to the sanitary sewer.

Groundwater Limitations Should be Imposed Only for those Pollutants for Which there is a Reasonable Potential to Affect Groundwater Quality.

The tentative WDRs acknowledge that the use of concrete lagoons represents best practicable treatment and control, and that the lagoons are not likely to result in water quality less than the applicable Basin Plan requirements. (Finding 33, 37.) The WDRs also note that the supernatant water may exceed water quality limits for three pollutants: manganese, zinc and total coliform. (The reported result for zinc of 2,700 ug/l appears to be a mistake, as further discussed in the attachments.) The dewatered solids are non-hazardous, and with the exception of manganese, do not present any threat to groundwater quality. Yet the WDRs would impose effluent limitations for some 20 pollutants, even those for which no reasonable potential exists.

Groundwater Limitations D.1.a. should be revised to include limitations for manganese and total coliform only.

Monitoring Requirements Should be Commensurate with the Potential Threat to Groundwater Quality

As discussed previously, our review of the DLM suggest the level of attenuation is sufficient to classify the waste as inert. In light of the extremely low threat to groundwater, we request that there be no requirements to monitor raw and treated water, supernatant, ponds, and sludge for the concrete lagoons.

We understand that monitoring of sludge not disposed of at a sanitary landfill may be prudent. We suggest that a sample of sludge be tested for Manganese, Aluminum and Total Coliform when sludge is not disposed at a sanitary landfill.

We agree with the Board that there is a very low threat to groundwater and that groundwater monitoring is not needed.

Conclusion

Additional detailed comments are provided in the attachment. We believe the issues raised in this letter and the attachment can be resolved, and representatives of the Utilities Department would welcome the opportunity to meet with you in advance of the December hearing to discuss the appropriate revisions.

If you have questions or would like to discuss these matters further, please contact Jim Peifer at (916) 808-1416.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. L. Brent', with a stylized flourish at the end.

David L. Brent
Engineering Manager

Copy to: Gary A. Reents, Director of Utilities
Roberta Larson, Somach, Simmons & Dunn

Attachment 2
Technical Issues/Corrections:

Finding 6: Chlorine is added for disinfection, not sodium hypochlorite.

Finding 11: It appears that the result for sodium was accidentally used for zinc. The analytical laboratory report indicates that zinc was not detected, but the WDR list a result of 2,700 ug/L. Sodium was detected at 2,700 ug/l according to the original laboratory report.

In addition, the Applicable Water Quality Limit Manganese is erroneously shown as 0.50 ug/L. The correct value is 50 ug/l or 0.05 mg/L.

Discharge Specification 8: We recommend deleting this specification in its entirety, as discussed in the cover letter. However, if the specification is retained over the City's objections, it must at a minimum be revised as follows, as the "overflow" is the device that separates the supernatant from the sludge:

Freeboard in any structure or lagoon containing waste shall never be less than two feet as measured from the water surface to the lowest point of the wall overflow."

Groundwater Limitation 1: The limitation includes an incorrect reference to an approved well monitoring network, which should be deleted:

Release of waste constituents from any wastewater treatment or storage system component associated with the WWTPs shall not cause groundwater under and beyond that system component, ~~as determined by an approved well monitoring network~~, to:

Provision E.b: Reports: As noted in the cover letter, the solids management report should be submitted by a date certain and all reference to the daily water treatment rate should be removed:

~~By 1 December 2007 At least 60 days prior to any planned increase in the daily water treatment rate (raw water inflow rate)~~, the Discharge shall submit a Solids Management System Expansion report that...

Information Sheet, Page 3. The units for Iron and Manganese are incorrectly shown as ug/L in the water quality objectives table. The correct units are mg/L.

Information Sheet, Page 4: While it is true that the City does not have sufficient solar drying capacity to accommodate sludge drying at the plant buildout capacity, the City does have other options to handle and dewater sludge. For example, the City hired a contractor to dewater sludge at the Fairbairn Water Treatment Plant in the spring of 2006.

Attachment 3

Responses to Comments Submitted by the California Sportfishing Protection Alliance (September 19, 2006)

1. CEQA Compliance:

CSPA's comments contend that the Regional Board should prepare an EIR for the potential land application of sludge generated by the City's water treatment process. While this comment is directed toward the Regional Board's own process and, as such, is best addressed by the Regional Board, the City offers the following comments.

Contrary to CSPA's comments, the WDRs do not authorize a "new project for the disposal of sludge." The "project" before the Regional Board is the adoption of WDRs that, among other provisions, establish conditions and requirements for the City's ongoing management of sludge. The WDRs do not approve or authorize a new project as CSPA contends.

Even if CSPA were correct in contending that adoption of the WDRs constitutes approval of a new project for sludge disposal, which is not the case, no EIR would be required under CEQA. Although CSPA's letter cites provisions of CEQA and the CEQA Guidelines that generally define a "project" and a "lead agency," CSPA does not specifically identify any potentially significant impacts that would necessitate preparation of an EIR. Section 15061(b)(3) of the CEQA Guidelines notes the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. As the proposed WDRs contain conditions to ensure that the sludge generated by water treatment plant operations will not affect water quality, and also require the disposal of sludge to comply with all applicable regulatory requirements, no potentially significant effects on the environment are presented.

Finally, as noted in the tentative WDRs, the potential environmental impacts associated with operation of the City's current facilities were analyzed in the EIR certified by the City Council in November of 2000, and no additional environmental review is required in order to continue operating these facilities. Future changes to these facilities could, of course, constitute a project requiring CEQA compliance prior to approval by the City or a permitting authority, but no such changes are being approved in conjunction with the Regional Board's adoption of WDRs.

2. Sludge Management Plan:

The CSPA comments incorrectly assert that the City has "cradle to grave" responsibility for any material generated in its process, without regard to the usefulness of the material as a commodity. If such were the case, virtually all recycling efforts in the state would be paralyzed. There are numerous processes by which material that would otherwise be considered waste is transformed into a useable product that can be sold and used without further regulatory restrictions. The comments also presume that the material is designated waste. If the sludge is determined to be designated waste, it must be managed in accordance with applicable regulations and requirements. Nothing in the WDRs suggests otherwise. CSPA offers the conclusory statement that the sludge management plan is inadequate, and then goes on to cite numerous requirements that apply to biosolids, which are not relevant to the water treatment plant sludge involved.

3. Sludge Improperly Classified as Compost:

CSPA appears to have confused the requirements for composting facilities with those for the use of the finished compost product. The citation to title 27 is both incomplete and inaccurate. Title 27 provides an exemption from consolidated solid waste regulations for certain activities. Among the exemptions are “soil amendments,” which are subject to best management practices. (27 CCR § 20090(f).) The regulations acknowledge that “compost, as an end product, typically is an innocuous, indeed beneficial” material. (80 Op. Atty Gen. Cal 327 (Nov. 21, 1997) at 6 (“compost, once created, may not pose a threat to the waters of the state.”)) As even the text cited by CSPA indicates, a Regional Water Board may, but is not required to, issue WDRs for the use of such materials. In addition, in those rare instances where WDRs are required, they can be issued to the end user, as appropriate. It is important to note here that the only constituent of concern present in the material is manganese, which exceeds a *secondary drinking water MCL* established to address aesthetic concerns in tap water.